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| EXAMINER | |
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| MANDEVILLE, JASON M | |
| ART UNIT | PAPER NUMBER |
| 2629 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/542,910 | ZHOU ET AL. | |
| | Examiner | Art Unit | |
| | JASON M. MANDEVILLE | 2629 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *20 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 July 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. **Claims 1-9** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. **Claim 1** recites “the drive means (100) are further arranged for controlling the reset potential difference of each picture element (2) of at least a number of the picture elements (2) to have an additional reset duration.” However, the specification and accompanying drawings do not provide sufficient disclosure to enable one of ordinary skill in the art at the time when the invention was made to unambiguously calculate and use the "additional reset duration." As such, it is unclear from the disclosure what level of experimentation is necessary in order to calculate and use the "additional reset duration." As shown in one embodiment in Fig. 3A-3B (see Page 6, Ln. 26-34 through Page 7, Ln. 1-34), the “reset duration” appears to be a constant duration value (see (t1, t2) and see **Claim 4**), wherein the “additional reset duration” (see (t1, t’2)) appears to be a time duration (t1, t’2) added to some varying time duration

(t'2, t2) that is necessary to produce the constant duration "reset duration" defined by (t1, t2). As such, the examiner assumes that the "additional reset duration" is the calculated duration necessary to produce the constant duration value (again, see (t1, t2)). However, as stated previously, the specification and accompanying drawings do not provide a description of the means or formulas for calculating this "additional reset duration." In fact, it is unclear from the specification what this "additional reset duration" is, why it is necessary to add this "additional reset duration" to the "reset duration" to reset the particles, an how this "additional reset duration" is calculated. Further, as shown in Fig. 4A-4B (see Page 7, Ln. 29-34 through Page 8, Ln. 1-21), it appears that in another embodiment the "reset duration" (see (t1, t2)) need not be a constant value. Thus, it appears that there are a number of ways of calculating the "additional reset duration," none of which is disclosed in the specification and accompanying drawings.

Further, **Claim 2** recites "each additional reset duration is larger than one tenth of a reference duration and smaller than three times the reference duration, the reference duration being equal to a duration to change the position of particles (6) of the respective picture element (2) from one of the extreme positions to the other one of the extreme positions." However, this definition of a "reference duration" appears to be both ambiguous and subjective, as a picture element (2) has a number of particles (6), each of which may have a different "duration to change the position" from "one of the extreme positions to the other one of the extreme positions." Further, it seems plausible that some of the particles (6) may not ever reach the "extreme position" if these particles (6) are numerous within each picture element (2). Thus, it is unclear what level

of experimentation is necessary in order to develop the claimed “reference duration.” As such, it is unclear from the specification and accompanying drawings how the “additional reset duration” is calculated in relation to the “reference duration” and in relation to the overall “reset duration.” Further, it is unclear how this “reference duration” and “additional reset duration” are implemented in the context of Fig. 3A-3B and Fig. 4A-4B.

Further, **Claim 8** recites “the drive means (100) are further arranged for controlling the potential difference of each picture element (2) of the number of picture elements (2) to be a sequence of preset potential differences before being the reset potential difference, the sequence of preset potential differences having preset values and associated preset durations, the preset values in the sequence alternating in sign, each preset potential difference representing a preset energy sufficient to release particles (6) present in one of said extreme positions from the position but insufficient to enable said particles (6) to reach the other one of the extreme positions." There is insufficient disclosure in the specification and accompanying drawings to enable one of ordinary skill in the art to make and use the claimed "preset potential differences." In fact (see Page 9, Ln. 15-34 through Page 10, Ln. 1-20), it is unclear how these "preset potential differences" are calculated and how the "preset potential difference" can concretely be defined in the context of "a preset energy sufficient to release particles (6) present in one of said extreme positions from their position but insufficient to enable said particles (6) to reach the other one of the extreme positions." Further, it is unclear

what level of experimentation is necessary in order to define such a "preset potential difference."

Thus, **Claims 1-9** are rejected for lack of enablement.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-9** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. **Claim 1** recites “the drive means (100) are further arranged for controlling the reset potential difference of each picture element (2) of at least a number of the picture elements (2) to have an additional reset duration.” However, the specification and accompanying drawings do not provide sufficient disclosure to allow one of ordinary skill in the art at the time when the invention was made to unambiguously calculate and use the "additional reset duration." As such, it is unclear from the disclosure what the applicant regards as his invention. As shown in one embodiment in Fig. 3A-3B (see Page 6, Ln. 26-34 through Page 7, Ln. 1-34), the “reset duration” appears to be a constant duration value (see (t1, t2) and see **Claim 4**), wherein the “additional reset duration” (see (t1, t’2)) appears to be a time duration (t1, t’2) added to some varying time duration (t’2, t2) that is necessary to produce the constant duration “reset duration” defined by (t1, t2). As such, the examiner assumes that the “additional reset duration” is the calculated duration necessary to produce the

constant duration value (again, see (t1, t2)). However, as stated previously, the specification and accompanying drawings do not provide sufficient description of the means or formulas for calculating this “additional reset duration.” In fact, it is unclear from the specification what this "additional reset duration" is, why it is necessary to add this “additional reset duration” to the “reset duration” to reset the particles, an how this “additional reset duration” is calculated. Further, as shown in Fig. 4A-4B (see Page 7, Ln. 29-34 through Page 8, Ln. 1-21), it appears that in another embodiment the “reset duration” (see (t1, t2)) need not be a constant value. Thus, it appears that there are a number of ways of calculating the “additional reset duration,” none of which is disclosed in the specification and accompanying drawings.

Further, **Claim 2** recites “each additional reset duration is larger than one tenth of a reference duration and smaller than three times the reference duration, the reference duration being equal to a duration to change the position of particles (6) of the respective picture element (2) from one of the extreme positions to the other one of the extreme positions.” However, this definition of a "reference duration" appears to be both ambiguous and subjective, as a picture element (2) has a number of particles (6), each of which may have a different “duration to change the position” from “one of the extreme positions to the other one of the extreme positions." Further, it seems plausible that some of the particles (6) may not ever reach the "extreme position" if these particles (6) are numerous within each picture element (2). Thus, it is unclear what the applicant regards as his invention and how the claimed “reference duration” is developed. As such, it is unclear from the specification and accompanying drawings

how the “additional reset duration” is calculated in relation to the “reference duration” and in relation to the overall “reset duration.” Further, it is unclear how this “reference duration” and “additional reset duration” are implemented in the context of Fig. 3A-3B and Fig. 4A-4B.

Further, **Claim 8** recites “the drive means (100) are further arranged for controlling the potential difference of each picture element (2) of the number of picture elements (2) to be a sequence of preset potential differences before being the reset potential difference, the sequence of preset potential differences having preset values and associated preset durations, the preset values in the sequence alternating in sign, each preset potential difference representing a preset energy sufficient to release particles (6) present in one of said extreme positions from the position but insufficient to enable said particles (6) to reach the other one of the extreme positions." There is insufficient disclosure in the specification and accompanying drawings to allow one of ordinary skill in the art to unambiguously determine and use the claimed "preset potential differences." In fact (see Page 9, Ln. 15-34 through Page 10, Ln. 1-20), it is unclear how these "preset potential differences" are calculated and how the "preset potential difference" can concretely be defined in the context of "a preset energy sufficient to release particles (6) present in one of said extreme positions from their position but insufficient to enable said particles (6) to reach the other one of the extreme positions."

Thus, **Claims 1-9** are additionally rejected as not satisfying the written description requirement.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 1-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Katase (US 2002 / 0005832) in view of Zehner et al. (hereinafter "Zehner" US 2003 / 0137521).

7. As pertaining to **Claim 1**, Katase discloses (see Fig. 1 and Fig. 2) an electrophoretic display panel (A; see Page 1, Para. [0004]), for displaying a picture corresponding to image information (see Page 1, Para. [0009]-[0010] and Page 3, Para. [0058]), comprising:

an electrophoretic medium (2) comprising charged particles (3);

a plurality of picture elements (11C);

a first and a second electrode (201, 104) associated with each picture element (11C) for receiving a potential difference (see Page 3, Para. [0062]-[0066]); and

drive means (100A, see Fig. 3),

the charged particles (3) being able to occupy a position being one of extreme positions near the electrodes (201, 104) and intermediate positions in between the electrodes (201, 104) for displaying the picture (see Fig. 2, Fig. 4A-4B, and Fig. 16A-16C, for example; also see Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079]),

and the drive means (100A) being arranged for controlling the potential difference of each picture element (11C; again, see Fig. 3 along with Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079])

to be a reset potential difference having a reset value (i.e., a reset voltage) and a reset duration (i.e., a reset time) for enabling particles (3) to substantially occupy one of the extreme positions (see Page 5 through Page 6, Para. [0094]-[0109] in conjunction with Fig. 2, Fig. 4A-4B, and Fig. 16A-16C, and Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079]), and subsequently

to be a picture potential difference for enabling the particles (3) to occupy the position corresponding to the image information (again, see Page 5 through Page 6, Para. [0094]-[0109] in conjunction with Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079]),

characterized in that

the drive means (100A) are further arranged for controlling the reset potential difference of each picture element (11C) of at least a number of the picture elements (11C) to have a reset duration (again, see Page 5 through Page 6, Para. [0094]-[0109]

in conjunction with Fig. 13 and Fig. 14, and Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079]).

Katase does not explicitly state that the drive means (100A) are further arranged for controlling the reset potential difference of each picture element (11C) of at least a number of the picture elements (11C) to have an additional reset duration. However, Katase discloses that the purpose of the reset potential difference is to enable the particles (3) to substantially occupy one of the extreme positions of the near the electrodes (201, 104; again, see Page 5 through Page 6, Para. [0094]-[0109] in conjunction with Fig. 2, Fig. 4A-4B, and Fig. 16A-16C, and Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079]). Thus, it would have been obvious to one of ordinary skill in the art at the time when the invention was made that the reset potential difference can have any additional reset duration and will still accomplish the goal of the reset potential difference.

Further, Zehner discloses (see Fig. 8 through Fig. 10 and Fig. 11A-11B) an electrophoretic display panel for displaying a picture corresponding to image information (see Page 1, Para. [0002] and [0005]-[0006] and Page 5, Para. [0066]-[0067]) comprising drive means (100A) arranged for controlling a reset potential difference of each picture element of at least a number of picture elements to have a variable reset duration (see Page 14, Para. [0150] and Page 16 through Page 17, Para. [0169]-[0175]). The inventions of Katase and Zehner are in the same field of endeavor. Further, Zehner provides a means of reducing the remnant voltage of an

electrophoretic display (see Abstract in conjunction with Page 1, Para. [0002]). Therefore, it would have been obvious to one of ordinary skill in the art at the time when the invention was made to combine the teachings of Katase with the teachings of Zehner. As such, it would have been obvious to one of ordinary skill in the art that the drive means (100A) of Katase can be further arranged for controlling the reset potential difference of each picture element (11C) of at least a number of the picture elements (11C) to have an additional reset duration.

8. As pertaining to **Claim 2**, Katase and Zehner disclose (see Fig. 1 and Fig. 2 of Katase and see Fig. 8 through Fig. 10 and Fig. 11A-11B of Zehner) that each additional reset duration can be larger than one tenth of a reference duration and smaller than three times the reference duration (see Page 14, Para. [0150] and Page 16 through Page 17, Para. [0169]-[0175] of Zehner), the reference duration being equal to a duration to change the position of particles (3) of the respective picture element (11C) from one of the extreme positions to the other one of the extreme positions (again, see Page 5 through Page 6, Para. [0094]-[0109] in conjunction with Fig. 2, Fig. 4A-4B, and Fig. 16A-16C, and Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079] of Katase).

9. As pertaining to **Claim 3**, Katase discloses (see Fig. 1 and Fig. 2) that each picture element (11C) is one of the number of the picture elements (11C).

10. As pertaining to **Claim 4**, both Katase and Zehner disclose (see Fig. 8 and Fig. 9 of Katase and see Fig. 9 and Fig. 10 of Zehner) that for each picture element (11C, as disclosed by Katase; see Fig. 2) the respective reset duration and the respective additional reset duration have a respective sum being substantially equal to a constant (i.e., the total reset duration is a constant value; see Page 5 through Page 6, Para. [0094]-[0109] in conjunction with Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079] of Katase; and see Page 14, Para. [0150] and Page 16 through Page 17, Para. [0169]-[0175] of Zehner).

11. As pertaining to **Claim 5**, both Katase and Zehner disclose that the drive means (100A as disclosed by Katase; see Fig. 3) are further arranged for controlling the reset potential difference of each picture element (11C as disclosed by Katase, see Fig. 2) to enable particles (3) to occupy the extreme position which is closest to the position of the particles (3) which corresponds to the image information (again, see Page 5 through Page 6, Para. [0094]-[0109] in conjunction with Fig. 2, Fig. 4A-4B, and Fig. 16A-16C, and Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079] of Katase and see Page 14, Para. [0150] and Page 16 through Page 17, Para. [0169]-[0175] of Zehner; the reset potential difference can enable particles to occupy either extreme position).

12. As pertaining to **Claim 6**, Katase discloses (see Fig. 1 and Fig. 2 in conjunction with Fig. 13) that the picture elements (11C; see Fig. 1 and Fig. 2) are arranged along substantially straight lines (i.e., see Fig. 13), and

the picture elements (11C) have substantially equal first appearances if particles (3) substantially occupy one of the extreme positions (see Page 5 through Page 6, Para. [0094]-[0109] in conjunction with Fig. 2, Fig. 4A-4B, and Fig. 16A-16C, and Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079]), and

the picture elements (11C) have substantially equal second appearances if particles (3) substantially occupy the other one of the extreme positions (again, see Page 5 through Page 6, Para. [0094]-[0109] in conjunction with Fig. 2, Fig. 4A-4B, and Fig. 16A-16C, and Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079]), and

the drive means (100A) are further arranged for controlling the reset potential differences of subsequent picture elements (3) along each line (see Fig. 13) to enable particles (3) to substantially occupy unequal extreme positions (i.e., the picture elements (3) are matrix addressed; thus, the particles (3) along any adjacent pixel elements (11C) or line can occupy any extreme position (see Page 6 through Page 7, Para. [0126]-[0130] and [0133]-[0141]).

13. As pertaining to **Claim 7**, Katase discloses (see Fig. 1 through Fig. 3, and Fig. 14) that the picture elements (11C) are arranged along substantially straight rows

(i.e., (Y)) and along substantially straight columns (i.e., (X)) being substantially perpendicular to the rows (Y) in a two-dimensional structure, each row (Y) having a predetermined first number of picture elements (11C), each column (X) having a predetermined second number of picture elements (11C), and the picture elements (11C) have substantially equal first appearances if particles (3) substantially occupy one of the extreme positions (see Page 5 through Page 6, Para. [0094]-[0109] in conjunction with Fig. 2, Fig. 4A-4B, and Fig. 16A-16C, and Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079]), and

the picture elements (11C) have substantially equal second appearances if particles (3) substantially occupy the other one of the extreme positions (again, see Page 5 through Page 6, Para. [0094]-[0109] in conjunction with Fig. 2, Fig. 4A-4B, and Fig. 16A-16C, and Page 3, Para. [0062]-[0066] in conjunction with Page 3 through Page 4, Para. [0068]-[0079]), and

the drive means (100A) are further arranged for controlling the reset potential differences of subsequent picture elements (11C) along each row (Y) to enable particles (3) to substantially occupy unequal extreme positions (i.e., the picture elements (3) are matrix addressed; thus, the particles (3) along any adjacent pixel elements (11C) or row can occupy any extreme position (see Page 6 through Page 7, Para. [0126]-[0130] and [0133]-[0141]), and

the drive means (100A) are further arranged for controlling the reset potential differences of subsequent picture elements (11C) along each column (X) to enable particles (6) to substantially occupy unequal extreme positions (i.e., the picture

elements (3) are matrix addressed; thus, the particles (3) along any adjacent pixel elements (11C) or column can occupy any extreme position (see Page 6 through Page 7, Para. [0126]-[0130] and [0133]-[0141]).

14. **Claims 8-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Katase in view of Zehner and further in view of Machida et al. (hereinafter "Machida" US 2002 / 0196207).

15. As pertaining to **Claim 8**, neither Katase nor Zehner explicitly disclose that the drive means (100A as disclosed by Katase) are further arranged for controlling the potential difference of each picture element (11C) of the number of the picture elements (11C) to be a sequence of preset potential differences before being the reset potential difference, the sequence of preset potential differences having preset values and associated preset durations, the preset values in the sequence alternating in sign, each preset potential difference representing a preset energy sufficient to release particles (3) present in one of said extreme positions from their position but insufficient to enable said particles (3) to reach the other one of the extreme positions.

However, Machida discloses (see Fig. 1 through Fig. 3, Fig. 9, and Fig. 14A-14C) an electrophoretic display panel (see Page 1, Para. [0004] and [0006]) comprising drive means (16; see Page 5, Para. [0085]-[0092]) arranged for controlling the potential difference of each picture element (44; see Fig. 14A-14C, for example) of the number of

the picture elements (44) to be a sequence of preset potential differences before being the reset potential difference (see Fig. 9; also see Page 2, Para. [0019]-[0025] and Page 3, Para. [0031]-[0032], [0036], and [0039]-[0040] along with Page 10, Para. [0155]-[0156]), the sequence of preset potential differences having preset values and associated preset durations (see Fig. 9), the preset values in the sequence alternating in sign, each preset potential difference representing a preset energy sufficient to release particles present in one of the extreme positions from their position but insufficient to enable the particles to reach the other one of the extreme positions (see Page 4, Para. [0046], [0049], and [0056] along with Page 6, Para. [0098]-[0103], Page 7, Para. [0105], and Page 14, Para. [0206]-[0209] and Fig. 1, for example). It is a goal of Machida to provide a means improving the contrast and quality in an electrophoretic display (see Page 2, Para. [0018]-[0019]). Further, the inventions of Katase, Zehner, and Machida are in the same field of endeavor. Therefore, it would have been obvious to one of ordinary skill in the art at the time when the invention was made to combine the teachings of Katase and Zehner with the teachings of Machida.

16. As pertaining to **Claim 9**, Machida discloses (see Fig. 9) that the drive means (100A as disclosed by Katase) are further arranged for controlling the potential difference of each picture element (11C as disclosed by Katase) of the number of the picture elements (11C) to be a further sequence of preset potential differences between being the reset potential difference and the picture potential difference (see Fig. 8 and Fig. 9 of Katase combined with Fig. 9 of Machida; in the combined invention of Katase,

Zehner, and Machida, it would have been obvious to one of ordinary skill in the art that the preset potential difference of Machida, the reset potential difference of Katase, and the picture potential difference taught by Katase and Machida will be in sequence).

## *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON M. MANDEVILLE whose telephone number is 571-270-3136. The examiner can normally be reached on Monday through Friday 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on 571-272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason Mandeville
Examiner
Art Unit 2629

/J. M. M./
Examiner, Art Unit 2629

/Alexander Eisen/
Supervisory Patent Examiner, Art Unit 2629